Typical Wiring Diagram using PK104B System Amplifier with 4 or 5 Wire Apt. Intercom Stations and 1 Entrance Lobby Panel

Fig. 1

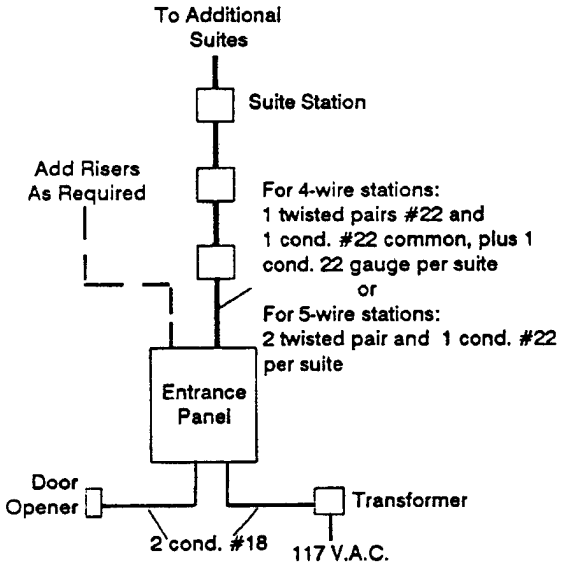
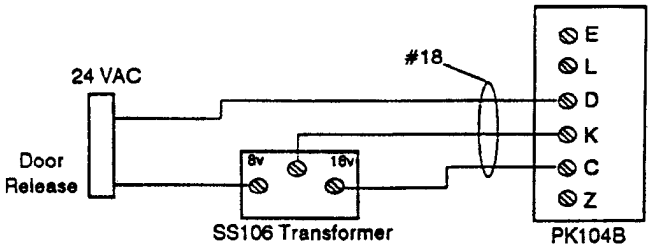


Fig. 2



WIRING

Suite Stations - may be wired in risers as shown in the wiring layout diagram, Fig. 1. Each riser requires one twisted pair and one conductor #22 plus one conductor #22 for each suite served by the riser. Maximum length is 400 ft. (120 meters). Additional risers may be added as needed. Cable should not be run in the same conduit with (or too close to) electrical wiring, background music wiring or very close to fluorescent lights or other electrical equipment. Leave sufficient cable in each box to make connections. Do not cut cable at each station.

Transformer - wiring should be 2 conductor, #18. Maximum cable length is 80 feet (25 meters), or up to 200 feet (60 meters) using #14 wire. Route cable away from suite station wiring.

Door Release - wiring should be 2 conductor, #18 cable. Maximum length is 50 feet (15 meters). To use 24 volt door release, use a model no. SS106 transformer and connect as in Fig. 2.

Connections - Before connecting, make certain wires are free from shorts or grounds. Make connections as shown in Fig. 3, observing the following notes:

1. Do not apply power to transformer primary until entire system has been installed and all wiring checked for shorts or grounds. The common wires connecting to terminals 1, 2 and 3 should show open circuit when tested with an ohmmeter.
2. Use twisted pair wiring as shown. Do not interchange wires or reverse polarity.
3. PK104B amplifier should be installed inside entrance panel when using OH190 series housing. If necessary to install the amplifier elsewhere due to temperature extremes, etc., or because OF190S surface frame is being used, 2 conductor, shielded cable must be used for the entrance panel speaker wiring (connect shield to amplifier terminal G). Note: amplifier should be located at least three feet (1 meter) away from transformers or other electrical equipment and must be kept away from direct heat or extreme cold.

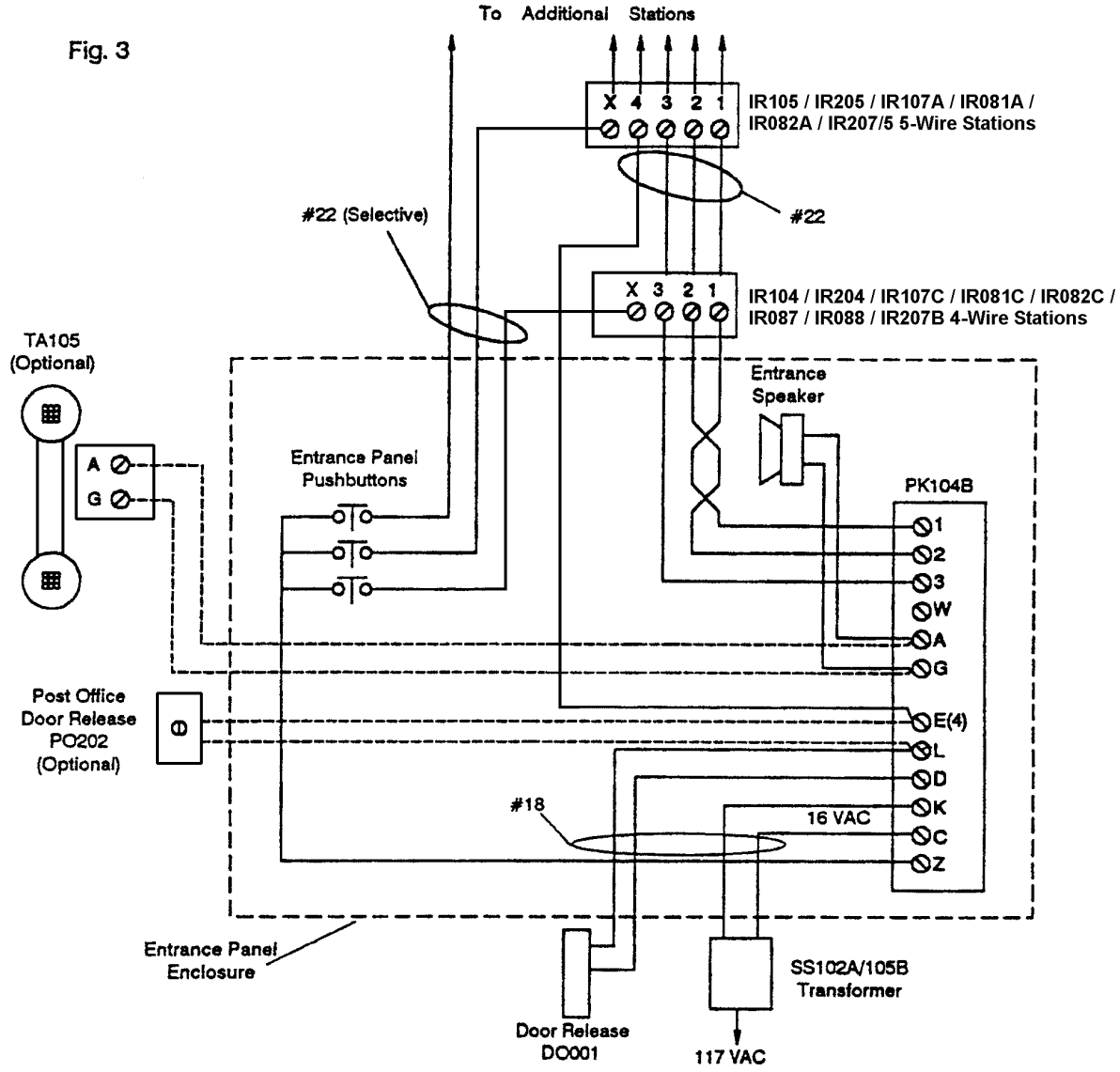
FINISH INSTALLATION

Install the amplifier on entrance panel housing (OF190 series only) in a position that will not interfere with panel mounted equipment. (Directory panel removal and replacement instructions are included with entrance panel.) Install suite stations on housings. DO NOT overtighten screws on plastic panels. Connect power transformer primary to 117 volts A.C.

TEST AND CHECK-OUT

At entrance panel, push each button, checking to determine if the correct suite is buzzed each time. At each suite, push TALK and LISTEN buttons to communicate with someone at the entrance panel; then push DOOR button to check door release option.

Fig. 3



TROUBLESHOOTING

If the system fails to operate properly, check wiring. If wiring is correct, check the following points:

1. Entire System Dead - Check 117 VAC at transformer primary, 16 volts AC at transformer secondary, and wiring to amp.
2. No Talk - Check wiring to terminals 1 and 2 shorted or open, and wiring to entrance panel speaker open or shorted. Suite station may be tested by replacement.
   No Listen - Check wiring to terminals 1 and 3 shorted or open and short between terminals 1 and 2.
4. No Door Operation - Check wiring to door release shorted or open, defective door release, and door button on suite station.
5. No Buzzing - Check wiring to amplifier terminal Z, entrance panel pushbuttons, and wiring to suite stations terminal X.
6. Excessive Hum or Distortion - Check wiring installed too close to electrical wiring or electrical devices, amplifier installed too close to transformers or electrical devices, twisted pair wiring not used as required, or amplifier volume set too high.
7. Radio Interference - Check connection from the amplifier terminal G to electrical ground. Note: This connection is not shown on wiring diagram, since the situation is not always improved by adding it. If problems persist, consult factory or service representative.

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